UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF INDIANA
HAMMOND DIVISION

BASF CORP.,	)	
	)	
Plaintiff,	)	
	)	
v.	)	2:07 CV 222 PPS
	)	
ARISTO, INC. and VICTOR ROSYNSKY,	)	
	)	
Defendants.	)	

OPINION AND ORDER

In 1999, a predecessor company to BASF Corporation received U.S. Patent No. 5,866,210 ("the '210 Patent"), a new process for coating catalytic converter substrates. The patent doesn't expire until 2016. In 2006 Aristo, Inc., working with its consultant Victor Rosynsky, designed and built a machine that also coats catalytic converter substrates. The problem is that Rosynsky was one of the named inventors on the '210 Patent. This got BASF's attention and it ultimately resulted in BASF bringing this action against Aristo and Rosynsky for patent infringement. Aristo and Rosynsky claim that their machine and its process don't infringe, and even if they it do, that the '210 Patent is invalid.

Following my claims construction opinion, BASF filed motions for summary judgment on the issues of infringement, assignor estoppel, and inequitable conduct. Aristo and Rosynsky filed motions for summary judgment, seeking a judgment of non-infringement and in the alternative, that the '210 Patent is invalid. For the following reasons, BASF's Motion for Summary Judgment on Infringement [DE 163], Aristo's Motion for Summary Judgment [DE 167], and Rosynsky's Motion for Summary Judgment [DE 183] are **DENIED**, and BASF's Motions for Summary Judgment on Assignor Estoppel [DE 164] and No Inequitable Conduct

[DE 165] are **GRANTED**.

BACKGROUND

BASF is a successor to Engelhard Corporation, the original owner of the '210 Patent. BASF and Aristo are both in the business of designing and manufacturing catalytic converters used in automobiles. Catalytic converters are used in automobile engines to convert harmful engine emissions to more benign substances. The type of catalytic converter BASF and Aristo build is composed of a core – or substrate – that sits inside a metal housing. The substrate is a single unit that houses a number of honeycomb-like channels running parallel to one another within a metal frame. A combination of precious metals – called the catalyst slurry – is used to coat these channels, and when engine exhaust flows through the channels, the catalyst slurry reacts with the exhaust, resulting in less harmful emissions. The precious metals comprising the slurry can be prohibitively expensive. So manufacturers like BASF and Aristo seek the most efficient method of coating those substrates to avoid waste. That method is what this case is about.

BASF designs and manufactures catalytic converters for automobiles in the Original Equipment Manufacturer ("OEM") market, meaning that BASF's main customers are the major automobile manufacturers. Aristo manufactures and sells catalytic converter substrates for use in the catalytic converter aftermarket. Its customers have traditionally been automotive repair and replacement companies, but it's recently began seeking business in the OEM market. Victor Rosynsky worked for Engelhard Corporation from 1969 until his retirement in 2000. [Rosynsky Dep., DE 166-15, at 19.] Rosynsky began working as a consultant for Aristo in 2005, and continues to do so.

PRIOR COATING PATENTS

The ‘210 Patent is BASF’s latest improvement upon its ever-evolving coating method. Before receiving the ‘210 Patent, Engelhard received patents on coating methods, including U.S. Patent No. 4,550,034 (“the ‘034 Patent) [DE 174-3]; and U.S. Patent No. 4,609,563 (“the ‘563 Patent”) [DE 174-4]. Both prior patents teach a process of coating called meter charged coating (“MCC”), which focuses on using a precise amount of slurry for each substrate to avoid waste.

In 1985, Thomas Shimrock, and two other inventors, assigned the ‘034 Patent to Engelhard. [DE 174-3.] The ‘034 Patent teaches a method of coating substrates where “a predetermined amount of catalyst slurry is metered into contact with a first end of the support.” [*Id.*] In the summary of the patent, it states that the method “eliminates the need for flooding the member with excess coating material and the ancillary steps for removal of the excess coating material from the member.” [*Id.* at 3:1-3.] The patent describes the way the vacuum should be applied when coating the slurry to avoid spiking, a phenomenon that takes place “when the initial vacuum application is too high,” and “the slurry is not drawn uniformly up into the cells of the substrate.” [*Id.* at 6:33-35.] The ‘034 Patent includes four examples of the process, each time including a predetermined amount of slurry to coat the substrates. [*Id.* at 8-10.]

The following year, Shimrock, along with Rosynsky and three others, invented the ‘563 Patent and assigned it to Engelhard. The ‘563 Patent is described as a “[m]ethod and apparatus for coating catalytic converter substrates with an exact amount of a precious metal.” [DE 174-4.] Building on the ‘034 Patent, the ‘563 Patent describes the apparatus used to practice the method of coating substrates. The ‘563 Patent begins with 15 figures that illustrate the components of the apparatus. Then it describes the prior art, and states that prior coating methods were

"deficient in minimizing the amount of coating applied," and that the '563 Patent is an extension of Shimrock's other inventions, including the '034 Patent. It notes that the '034 Patent emphasized the need for "precisely controlling the amount of alumina and metal catalyst slurries . . . to reduce the amount of excess coating." [*Id.* at 1-2.] It also references a previous patent, U.S. Patent No. 4,191,126, where the "slurry is applied to a substrate either by dip coating or by applying a coating charge to the upper end of the substrate." [*Id.*]

The'563 Patent states that it has the advantage of using a predetermined amount of slurry to apply a uniform coat of slurry within the substrate:

> Thus, by using the process and apparatus of the present invention, it is possible to apply a uniform coating of the desired concentration of the refractory and catalyst metal components without the need for external coating removal or internal unplugging of the internal skeletal passageways of the ceramic monolithic substrate.

[*Id.* at 2:53-59.] Like the '034 Patent, the '563 Patent repeats the concern for spiking during the vacuum process:

> The purpose of loading the slurry using two levels of vacuum is to avoid "spiking" of the coating slurry in the interior passageways of the substrate. Spiking is a phenomenon which occurs when the initial vacuum applied is too high and the slurry is therefore not drawn uniformly up into the cells of the substrate.

[*Id.* 14:31-38.] Engelhard practiced this process in coaters called the MCC III until it received the '210 Patent. [Cornelius Dep., DE 166-6, at 5-6.]

THE '210 PATENT

The '210 Patent switched gears. Unlike the '034 Patent and the '563 Patent, the '210 Patent teaches a method of coating the channels of a substrate through a process called vacuum infusion coating ("VIC"). During the '210 Patent process:

> [T]he substrate is partially immersed into a vessel containing a bath of the coating media with the volume of coating media lying above the end of the immersed

> substrate being sufficient to coat the substrate to a desired level. A vacuum is then applied to the partially immersed substrate at an intensity and time sufficient to draw the coating media upwardly from the bath into each of the channels to form a uniform coating profile.

[*Id.* at 1.] The focus in the '210 Patent is still on creating a uniform coating profile, but it teaches use of an excess amount of slurry in the dip pan, rather than the predetermined amount taught by the '034 and '563 Patents. The patent includes eleven claims – one independent claim (Claim 1), and ten dependent claims. (A dependent claim is one that includes elements of claims they cross-reference. *See* 35 U.S.C. § 112 ¶¶ 3-4). Here are the 11 claims of the '210 Patent:

> 1. Method for coating a substrate having a plurality of channels with a coating media comprising:
> a) partially immersing the substrate into a vessel containing a bath of the coating media, said vessel containing an amount of coating media in excess of the amount sufficient to coat the substrate to a desired level;
> b) applying a vacuum to the partially immersed substrate at an intensity and a time sufficient to draw the coating media upwardly from the bath into each of the channels for a distance which is less than the length of the channels to form a uniform coating profile therein; and
> c) removing the substrate from the bath.
> 2. The method of claim 1 further comprising drying the coated substrate.
> 3. The method of claim 2 comprising after the substrate has been removed from the bath, continuing to apply a vacuum to the substrate.
> 4. The method of claim 3 wherein the intensity of the vacuum applied after the substrate has been removed from the bath is at least equal to the intensity of the vacuum applied to the substrate while immersed in the bath.
> 5. The method of claim 1 further comprising replenishing the bath with an amount of coating media which was used to coat the substrate while the substrate is being coated.
> 6. The method of claim 1 comprising applying the vacuum to the partially immersed substrate for from about 1 to 3 seconds.
> 7. The method of claim 1 wherein the intensity of the vacuum is up to 1 inch of water.
> 8. The method of claim 4 wherein the intensity of the vacuum applied after the substrate has been removed from the bath is from about 5 to 15 inches of water.
> 9. The method of claim 4 comprising applying the vacuum after the substrate had been removed from the bath for about 2 to 4 seconds.
> 10. The method of claim 1 comprising immersing the substrate into the coating media to a depth of from about 0.25 to 0.5 inch.

11. A coated monolithic substrate having a uniform coating profile produced in accordance with the method of claim 1.

[DE 174-2 at 8-9.]

The‘210 Patent references three other patents in its description of prior art: (1) U.S. Patent No. 4,383,014 (“014 Patent”); (2) U.S. Patent No. 4,191,126 (“126 Patent”); and (3) the ‘563 Patent described above. [*Id.* at 6.] It notes that the ‘014 Patent discloses creation of a vacuum over the substrate to remove air from the channels and draw the slurry upward, and that the ‘126 Patent discloses dipping the substrate into the slurry. Then it describes the ‘563 Patent in greater detail, noting that this system uses a pan of a predetermined size with a precisely controlled amount of slurry. It states that “[w]hile the ‘563 patent process provides a smooth coating exceeding that of the other reference processes, nonetheless, there is still difficulty in obtaining a uniform coating profile.” [*Id.* at 2: 14-17.] It also states that the ‘563 Patent is less desirable because it includes the expensive requirement that the dip pan size conform to the substrate size. [*Id.* at 2:20-24.] In contrast, because the ‘210 Patent teaches the use of excess slurry, any size dip pan is permissible. [*Id.*]

ARISTO’S COATING MACHINE

As referenced at the outset, the dispute between BASF and Aristo arose following Victor Rosynsky’s consulting work for Aristo. While Rosynsky worked at Engelhard, his position was “Manager, Product Development – Environmental Technologies Group,” and he worked to improve catalytic converters and Engelhard’s coating processes. As I’ve noted above, one such design resulted in the‘210 Patent.

After retirement, Rosynsky started his own company, providing industrial training and consulting services, and in 2005, he began consulting for Aristo. Aristo picked Rosynsky

because of his experience designing coaters, and when Aristo's representatives met with him, they told him that Aristo wanted to develop an advanced coating method and machine. [Rosynsky Dep., DE 166-15, at 2-3, 17-18.] Rosynsky agreed, and helped design, build, and operate Aristo's coating machine, called the MISO Coater.

During this process, Rosynsky made at least one presentation about the machine design he envisioned, and he helped formulate the machine specifications for the MISO Coater, as well as the MISO Coater Operator Manual. [DE 169-5.]. Rosynsky also decided on the fabricator to build the machine. He reached out to Paul Takacs at MP Technologies ("MPT") – the same person and company he worked with while at Engelhard. Thereafter, he oversaw MPT's work, drafted the operating manual and start-up checklist for the MISO coating machine, and taught the operators how to run the machine. [Rosynsky Dep., DE 166-15, at 2, 4, 8-10, 16-17.] Rosynsky was paid as a consultant, and received a monthly retainer of $15,000 while the machine was designed and constructed, and then $6,000 a month thereafter. [*Id.* at 18, 25; Rosynsky Decl., DE 200-19 ¶ 6.]

The MISO Coater is a fully automated coating machine comprised of 20 stations set up in a circular layout, whereby substrates pass from one station to the next by an automated mechanism. [DE 169-5, at 4-9.] Station 3 and 11 are the machine's two coating stations. According to the MISO Coater Operator Manual, the coating stations perform identical steps to coat opposite sides of each substrate: the substrate is moved directly over the dip pan, the dip pan moves up, a low vacuum is applied, the dip pan lowers, a high vacuum is applied, and the machine moves the substrate to the next station for drying. [*Id.* at 8.] Because the substrate is flipped, after a substrate goes through all 20 stations, it should be fully coated.

BASF claims that the process Aristo employs in operating the MISO Coater infringes the '210 Patent. BASF sued Aristo and later added Rosynsky as a defendant. After holding a claims construction hearing, I made the following findings as to disputed terms within the '210 Patent.

DISPUTED LANGUAGE	CONSTRUCTION
"Uniform Coating Profile"	The substrate is coated by the slurry to approximately the same length across the channels so that the profile deviates only slightly, if at all, across the width of the substrate.
Claim 1(b): "Into each of the channels for a distance which is less than the length of the channels to form a uniform coating profile."	Each coating process must partially coat the substrate to form a uniform coating profile across the substrate.
Claim 1(a): "Said vessel containing an mount of coating media in excess of the amount sufficient to coat the substrate to a desired level."	A vessel containing more slurry than is needed to coat the channels less than the length of the substrate, such that the height of slurry above the bottom of the immersed substrate is high enough above the immersed end during coating that no air is drawn into the channels.
Claim 1(b): "At an intensity and a time sufficient to draw the coating media upwardly from the bath."	Normal ordinary meaning.
Claim 5: "Replenishing the bath with an amount of the coating media which was used to coat the substrate" and "while the substrate is being coated."	Normal ordinary meaning.
Claim 11: "A coated monolithic substrate having a uniform coating profile produced in accordance with the method of claim 1."	Normal ordinary meaning based on the construction of claim 1.

[DE 161.] Based on my claims construction, the parties filed cross motions for summary judgment.

BASF seeks three findings: (1) that both Aristo and Rosynsky infringe Claims 1 to 6, 9,

and 11 of the '210 Patent; (2) that Aristo and Rosynsky's counterclaim challenging the validity and enforceability of the '210 Patent is dismissed due to assignor estoppel; and (3) that Aristo and Rosynsky's counterclaim that BASF's attorneys engaged in inequitable conduct in obtaining the '210 Patent also be dismissed. Aristo and Rosynsky seek a judgment that (1) its MISO Coater does not infringe the '210 Patent; and (2) the '210 Patent is invalid due to obviousness.

DISCUSSION

Along with their summary judgment motions, the parties filed a slew of evidentiary motions. BASF filed a Motion to Strike [DE 190], and two Motions to Preclude [DE 191; DE 217.] Aristo filed a Motion to Strike Evidence [DE 198] and a Motion to Strike Expert Testimony of Dr. Leonard Schwartz [DE 199.] Each of these motions is denied.

I'll resolve BASF's motions first. In it's Motion to Strike [DE 190], BASF seeks to strike paragraphs 1-22, and 24-35 of Aristo's statement of material facts [DE 168-1] because they don't provide citations to the record. *See* Fed. R. Civ. P. 56(c)(1) (requiring citations to the record in asserting disputed facts). As Aristo's response included a corrected appendix that provided such citations, the motion is denied.

In its first Motion to Preclude [DE 191], BASF claims that Aristo shouldn't be able to rely on the following evidence in its summary judgment arguments: (1) the declaration of Douglas Kowalski; (2) the declaration of Alex Graper; (3) the declaration of Paul Takacs; and (4) information regarding substrate lots run on the MISO Coater (Lot B2K 08221056 ("Lot 1056"), Lot B2K 11297035 ("Lot 7035"), Lot R2K56 11284073 ("Lot 4073"), and Lot G2K56-11290-001 ("Lot 001")). Federal Rule of Civil Procedure 37(c) provides that "[i]f a party fails to provide information or identify a witness as required by Rule 26(a) or (e), the party is not

allowed to use that information or witness to supply evidence on a motion, at a hearing, or at a trial, unless the failure was substantially justified or is harmless." The sanction for such a failure is "automatic and mandatory." *Finley v. Marathon Oil, Co.*, 75 F.3d 1225, 1230 (7th Cir. 1996). However, courts have broad discretion in determining whether the failure is harmless or justified. *David v. Caterpillar, Inc.*, 324 F.3d 851, 857 (7th Cir. 2003). The following factors guide the district court's discretion: "(1) the prejudice or surprise to the party against whom the evidence is offered; (2) the ability of the party to cure the prejudice; (3) the likelihood of disruption to the trial; and (4) the bad faith or willfulness involved in not disclosing the evidence at an earlier date. *Id.* (quoting *Bronk v. Ineichen*, 54 F.3d 425, 428 (7th Cir. 1995)).

Along with its summary judgment briefing, Aristo submitted the declarations of two Aristo employees: Douglas Kowalski, Aristo's Operations Director [DE 176], and Alex C. Graper, Aristo's Production Engineer [DE 173]. In these declarations, Kowalski and Graper reference exhibits containing pictures of coated substrates from Lot 1056, Lot 7035, Lot 4073, and Lot 001.

BASF argues that the Graper and Kowalski declarations and attached exhibits shouldn't be considered because they contain information about the MISO Coater and its settings that BASF never received. BASF claims that it repeatedly tried to get information about the MISO Coater's setting from Aristo, but never received materials such as this. Aristo responds that Lot 1056 was created in the presence of a representative of BASF, who recorded the process. As Kowalski's declaration references Lot 1056, Aristo isn't precluded from relying on evidence from Lot 1056.

As to Lot 7035 and Lot 4073, Aristo responds that these lots are not different enough

from Lot 1056 to prejudice BASF or require that BASF receive additional discovery. Given that the pictures Aristo produced from these lots do not show a significant difference, and that BASF had the ability to go out into the market whenever it wished to obtain other substrates created by Aristo, I'm unconvinced that BASF was prejudiced. I won't preclude Aristo from relying on the evidence resulting from these substrates. The same is true of the evidence submitted relating to Lot 001, as this evidence was submitted merely for demonstrative purposes.

Similarly, the Kowalski and Graper declarations are completely appropriate because they both serve to authenticate the substrate lots. BASF insists that these Aristo employees are giving expert opinions, which is just not true; Kowalski and Graper's declarations simply describe the substrate lot specifications to authenticate the pictures of the substrates. BASF also argues that because Graper wasn't disclosed as a witness in Aristo's initial disclosures, his declaration should be stricken. However, Graper was identified in Kowalski and Rosynsky's depositions, so even if Aristo failed to include him in the initial disclosures, Aristo cured that deficiency. *See* Fed. R. Civ. P. 26(e) (requiring a party to supplement disclosures and responses "if the additional or corrective information has not otherwise been made known to the other parties during the discovery process").

Finally, BASF argues that Aristo cannot rely on the Takacs declaration because his statements are inconsistent, and Aristo is attempting to treat him as an expert witness. In his declaration, Paul Takacs states that he is the president and founder of Manufacturing Process Technologies ("MPT"), and MPT manufactured coating machines for Engelhard for years. [DE 179.] He states that he manufactured the coating machine that Engelhard practiced the process taught by the '563 Patent, and the machine made samples with "coating profiles that were

approximately the same length across the channels." Despite BASF's claim to the contrary, his statements are not his expert opinion; rather, they're first hand observations he made based on the work he did for Engelhard. Although BASF points out an inconsistent statement in Takacs' 2008 affidavit, that is neither here nor there. Inconsistencies in statements bear on the weight to be given the testimony, not its admissibility. *See Humes v. EMF Corp.*, No. 1:10-cv-00070, 2011 WL 2225047, at *2 (N.D. Ind. June 3, 2011) (denying motion to strike inconsistent affidavit statements because the court can simply disregard such statements without striking the evidence). I won't preclude Aristo from relying on the Takacs declaration.

BASF's Second Motion to Preclude [DE 217], takes issue with a second declaration from Kowalski [DE 200] which was submitted along with Aristo's Opposition to BASF's Motion for Partial Summary Judgment. BASF repeats its previous argument – that BASF sought information concerning the MISO Coater's settings and Aristo failed to produce such information. However, the motion is denied because, as I stated above, BASF had the opportunity to review the MISO Coater's settings during its representative's recorded observation of the coating process.

Both of Aristo's motions are also denied. Aristo's Motion to Strike Expert Testimony [DE 199] argues that Schwartz's report should be struck because his definition of "uniform coating profile" doesn't align with the claims construction. In his report Schwartz defined a uniform coating profile as follows: "Each channel of the substrate open to the coating slurry is coated by the slurry to approximately the same length and forms a cross-sectional profile that is more straight than crescent-shaped." [Schwartz Expert Report, DE 171-4, at 20.] It's true that this definition of the term "uniform coating profile" differs from the claim construction.

However, Schwartz testified after the claims construction ruling that his opinion didn't change based on the court's definition of uniform coating profile. [Schwartz Dep., DE 221-4, at 2.] As his subsequent statement aligns with the claims construction, it's unnecessary to strike his report.

Aristo also takes issue with the fact that Schwartz measured the coating deviation based on Figure 3B of the '210 Patent. [*See* DE 171-4, at 19.] However, Schwartz didn't rely on only Figure 3B, and even if he did, Schwartz stated in his report that the mathematical figure wasn't necessary to his conclusion. [*Id.* at 19.] The motion to strike Schwartz's expert testimony is therefore denied.

In its Motion to Strike, Aristo also asks that I strike a long list of BASF's exhibits, namely Plaintiff's Exhibit 1-7, 36, 39, 40, 41, 43, 44, 46, 52, 59, and 60. [DE 198.] In deciding a motion for summary judgment, courts consider "any material that would be admissible or usable at trial," including "properly authenticated and admissible documents or exhibits." *Smith v. City of Chicago*, 242 F.3d 737, 741 (7th Cir. 2001). The requirement of authentication under Fed. R. Evid. 901 is satisfied by "evidence sufficient to support a finding that the matter in question is what its proponent claims." *Reliance Std. Life Inc. Co. v. Lyons*, 756 F. Supp. 2d 1013, 1024. Only a *prima facia* showing of genuineness is necessary. *United States v. Harvey*, 117 F.3d 1044, 149 (7th Cir. 1997).

I'm unwilling to strike any of these exhibits. First off, Aristo concedes that Exhibits 1-7 and 60 are admissible. As to Exhibit 36, 39, 40, 41, 46, 48, 52, 56, and 59 [DE 169; DE 172], I won't strike them because Aristo either produced them or they've been otherwise authenticated. Exhibit 36 was produced by Aristo, and production of a document is "implicit authentication." *See United States v. Lawrence*, 934 F.2d 868, 870-72 (7th Cir. 1991). Exhibit 39 is a

memorandum from Rosynsky regarding vacuum infusion coating [DE 169-10], and Exhibit 40 is the assignment of the 210 Patent [DE 174-11]. Rosynsky authenticated both documents during his deposition, so they're plainly admissible. [Rosynsky Dep., DE 166-15, at 22-23.] Exhibit 41 is the '210 Patent prosecution history, a government document that I can readily take judicial notice of. [DE 174-12.] Exhibit 46 includes photos taken during BASF's inspection of the MISO Coater on June 16, 2008. [DE 170-1, 170-2.] Kowalski authenticated some of these photos during his deposition, and so they are admissible. *See* Fed. R. Evid. 901(b)(1). Exhibit 48 is a report Schwartz created and attached to his expert report for BASF. [DE 172-1.] As Schwartz authenticated these documents, they're admissible. [Schwartz Expert Rpt., DE 171-4, at 21-22.] Exhibit 52 [DE 172-4] is a document created by an MPT employee, and because Takacs authenticated it in his deposition [Takacs Dep., DE 218-1, at 2], it too is admissible. Exhibits 56 and 59 were produced by Rosynsky in response to a subpoena and authenticated by him. [Rosynsky Dep., DE 166-15, at 6-7, 13.] Similarly, exhibit 52 was produced by MPT pursuant to a subpoenas BASF and Aristo issued and Takacs authenticated them. [*See* Takacs Dep., DE 218-1 at 2.]

I'll admit unauthenticated documents for summary judgment purposes because BASF made a *prima facie* showing of admissibility. *See Harvey*, 117 F.3d at 1049. Exhibit 38 is the August 28, 1994 Joint Presentation by Engelhard and MPT. [DE 169-9.] This document references the '563 Patent process as metered charge coating. As Exhibit 39 is quite similar, and authenticated by Rosynsky, I'll accept this document as admissible for summary judgment purposes. Also similar to Exhibit 39, Exhibit 43 is a January 1999 presentation entitled "MCC IV Operations Training." [DE 169-12.] BASF cites it to show Rosynsky's involvement in the

process, and that the name of the process was called MMC IV. I won't strike this exhibit either. Finally, I won't strike Exhibit 44 for the same reasons – it's an October 5, 1999 report from BASF from the MCC IV Team, and it's characteristics are similar enough to the admissible document to be included for summary judgment purposes.

To summarize: neither Aristo nor BASF have convinced me that the documents submitted for my review are inappropriate for my consideration of the pending motions. So all of the evidentiary motions are denied.

INFRINGEMENT/NON-INFRINGEMENT

Moving on to the dispositive motions, summary judgment is just as appropriate in a patent case as in any other. *Barmag Barmer Maschinenfabrik AG v. Murata Mach., Ltd.*, 731 F.2d 831, 835 (Fed. Cir. 1984). It is proper "if the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to a judgment as a matter of law." Fed. R. Civ. P. 56(c). The party seeking summary judgment carries the initial burden of demonstrating an absence of evidence to support the position of the non-moving party. *Doe v. R.R. Donnelley & Sons, Co.* , 42 F.3d 439, 443 (7th Cir. 1994). The non-moving party must then set forth specific facts showing there is a genuine issue of material fact and that the moving party is not entitled to judgment as a matter of law. *Anderson v. Liberty Lobby,* 477 U.S. 242, 252 (1986). A genuine dispute about a material fact exists only if the evidence is such that a reasonable jury could return a verdict for the non-moving party. *Celotex Corp. v. Catrett* , 477 U.S. 317, 323-24 (1986). In resolving a motion for summary judgment, I must draw every reasonable inference from the record in the light most favorable to the non-moving party.

Haefling v. United Parcel Serv., Inc., 169 F.3d 494, 497 (7th Cir. 1999).

Infringement issues can be appropriate for summary judgment. *Johnson Worldwide Assoc., Inc. v. Zebco Corp.*, 175 F.3d 985, 994 (Fed. Cir. 1999); *Karlin Tech., Inc. v. Surgical Dynamics, Inc.*, 177 F.3d 968, 974 (Fed. Cir. 1999). To reach its decision, courts rely on experts and testing. *Symbol Techs., Inc. v. Opticon, Inc.*, 935 F.2d 1569, 1574 (Fed. Cir. 1991). When one "makes, uses, offers to sell, or sells any patented invention" in the United States during the term of the patent, he is liable for direct, literal infringement of a patent. 35 U.S.C. § 271(a). And a person or entity can indirectly infringe a patent by inducing another to infringe or contributing a part of the infringement. *Id*. § 271(b)-(c).

An independent claim is infringed if every step recited in the claim is present. *Lantech, Inc. v. Keip Mach. Co.*, 32 F.3d 542, 547 (Fed. Cir. 1994). A dependent patent claim – a claim that cross references an earlier claim – is infringed if the accused device or process has every element of the dependent claim as well as the corresponding independent claim. *Wahpeton Canvas Co. v. Frontier*, 870 F.2d 1546, 1552 n.9 (Fed. Cir. 1989).

Analysis of infringement is a two-step process. First the court determines the scope of the claims, and then the fact-finder compares the construed claim to the accused device to determine as a matter of fact whether all the claim limitations are present, "either literally or by a substantial equivalent, in the accused device." *Rexnord Corp. v. Laitram Corp*., 274 F.3d 1336, 1341 (Fed. Cir. 2001); *Rodime PLC v. Seagate Tech., Inc*., 174 F.3d 1294, 1301-02 (Fed. Cir. 1999). Under the doctrine of equivalents, even where there is no literal infringement, "a product or process that does not literally infringe upon the express terms of a patent claim may nonetheless be found to infringe if there is 'equivalence' between the elements of the accused

product or process and the claimed elements of the patented invention." *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 21 (1997). Thus, an inventor can't avoid infringement where he changes only minor or insubstantial details of a claimed invention while retaining the invention's essential identity. *Festo Corp. v. Shokestu Kinzoku Kogyo Kabushiki Co.*, 234 F.3d 558, 564 (Fed. Cir. 2000). Similarly, an inventor can't avoid infringement where the method "employs additional steps." *Moleculon Research Corp. v. CBS, Inc.*, 793 F.2d 1261, 1271 (Fed. Cir. 1986).

In deciding summary judgment motions, I must review the evidence in the light most favorable to the non-moving party. Viewing the evidence in the light most favorable to Aristo, BASF has not established that the undisputed facts show either direct infringement or infringement by the doctrine of equivalents. But by the same token, when I flip the matter and consider Aristo and Rosynsky's arguments for non-infringement in the light most favorable to BASF, it is clear that those too must proceed to trial. In other words, it will be for a jury to sort this mess out.

BASF claims the MISO Coater's process infringes Claims 1, 2, 3, 4, 5, 6, 9, and 11 of the '210 Patent. To prove infringement, BASF corresponds each '210 Patent claim at issue with evidence describing or illustrating the MISO Coater process. BASF begins with step (a) of Claim 1, which is "partially immersing the substrate into a vessel containing a bath of the coating media, said vessel containing an amount of coating media in excess of the amount sufficient to coat the substrate to the desired level." I construed this claim as follows: "[A] vessel containing more slurry than is needed to coat the channels less than the length of the substrate, such that the height of slurry above the bottom of the immersed substrate is high enough above the immersed

end during coating that no air is drawn into the channels." [DE 161, at 29.] To show infringement, BASF points out that Rosynsky and Kowalski both stated that the MISO Coater's dip pans contained more slurry than is needed for one substrate. [Rosynsky Dep., DE 166-15, at 7; Kowalski Dep., DE 210-2, at 61-62.] And to show that the substrate is partially immersed, BASF points to its expert report and a video recording of the MISO Coater process. [*See* Schwartz Expert Rpt., DE 171-4, at 21-22; Video Excerpts, DE 172-11, at 2:13:46-2:17:21.] Aristo doesn't dispute these facts.

As to Claim 1, step (b) – where a low speed vacuum is applied to the partially immersed substrate to pull the slurry up through the channels less than the entire length of the channels – BASF points to the MISO Coater Operator Manual and Kowalski's testimony. [DE 169-5, at 23; Kowalski Dep. at 63-64, DE 210-2.] The Operator Manual provides that a low vacuum is "engaged for a predetermined time frame and intensity," and then when the dip pans lower, a "high vacuum is engaged for a given time frame and intensity." [DE 169-5, at 23.] And Kowalski testified that the dip pan is raised until the substrate contains a small amount of slurry, and then a vacuum is applied to the opposite side to pull the slurry to the same height in the substrate. [Kowalski Dep., DE 210-2, at 11-12.] Aristo doesn't dispute BASF's argument here either.

Finally, to show infringement as to Claim 1, step (b), where the vacuum is applied "to form a uniform coating profile," BASF points to Schwartz's expert report. In it, Schwartz defines a uniform coating profile as a coating that "forms a cross-sectional profile that is more straight than crescent-shaped." [DE 171-4, at 20.] He reviewed MISO Coater substrates that were sold on the market, and concluded that the substrates had uniform coating profiles based on

his visual review. [*See* Schwartz Expert Rpt., DE 171-4, at 21-22.] Additionally, Schwartz conducted a microscopy view, where he measured the variation of the subset of channels containing the greatest deviation in slurry height. He begins by stating that a variation degree of 10% across a coating profile was considered "relatively flat." Schwartz then concluded that because the microscopy samples showed a 6% variation across the coating profile, the MISO Coater substrates had uniform coating profiles. [*Id.*]

BASF acknowledges that Schwartz's definition is not the same as my construction of the term "uniform coating profile," which provides that the slurry is the "same length across the channels so that the profile deviates only slightly, if at all, across the width of the substrate." [DE 161, at 12.] However, BASF also points out that Schwartz submitted his report prior to that opinion, and subsequently concluded that even under my construction, the MISO Coater samples still show a uniform coating profile. [Schwartz 12/6/2011 Decl.., DE 216-1 ¶ 7.]

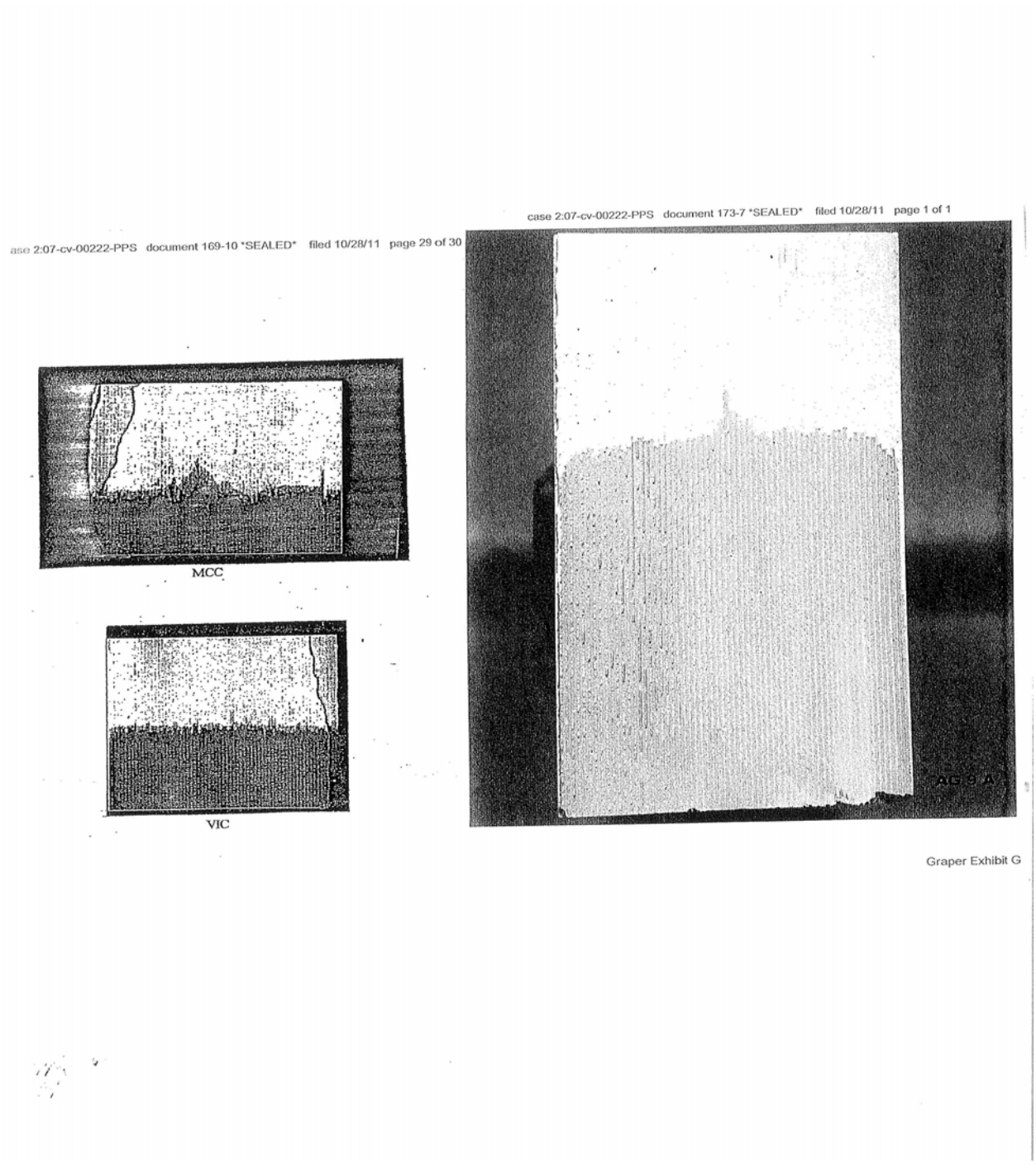
Aristo responds to Claim 1 with one focus – the MISO Coater doesn't create a uniform coating profile because the MISO Coater substrates show a spike of slurry in the midsection. According to Aristo, such a result shows that the MISO Coater actually practices what is taught by the '034 and '563 Patent processes. To demonstrate this, Aristo begins with a visual analysis, pointing to two coating profile photos, one that shows the curvilinear profile of the '563 Patent (labeled "MCC"), and the other showing the more linear profile of the '210 Patent (labeled "VIC"). [*See* DE 200, at 17-18; DE 169-10, at 29.] Then Aristo submits its own evidence to show the MISO Coater's similarity to the '563 Patent profile – photos of substrates from lots run on the MISO Coater, authenticated by two Aristo employees, Douglas Kowalski, Aristo's Operations Director, and Alex Graper, Aristo's Production Engineer. [DE 176; DE 173.] Most

of those photos show substrates that had been fully coated, but one of the photos Graper submitted shows a substrate that had only been coated on one side, so the profile is clearer. [DE 173-7.] Upon viewing those photos, Aristo argues, the MISO Coater photos resemble the '563 profile much more than the '210 profile.

Further, Aristo had its own expert, John Sawyer, analyze whether its MISO Coater produces substrates with uniform coating profiles. Sawyer reviewed a coating profile of a MISO Coater substrate and opined that it hadn't used the process taught by the '210 Patent. [Sawyer Dep., DE 194-15, at 2.] Sawyer disagrees with Schwartz's assessment that a 10% variation across a profile is "relatively flat." Rather, Sawyer states that a 10% variation may arise due to "randomly distributed slight variations in coating lengths," but the MISO Coater substrates he viewed didn't have that type of variation. Instead, the variation he reviewed is the type often caused by a vacuum. What's more, Sawyer criticized Schwartz's approach, stating that calculating a percentage difference between the highest and lowest coating profiles isn't the proper measure of whether a coating profile is uniform. [Sawyer 11/23/2011 Decl., DE 201-3 ¶ 17.]

Due to the conflicting evidence and opinions about whether the MISO Coater creates a "uniform coating profile," summary judgment as to Claim 1 is not possible. Starting with the photos, the various photos submitted tee this up perfectly for a jury to decide. Aristo's photos from MISO Coater substrates certainly show that there is a difference between the MISO Coater's coating profile and the '210 Patent ("VIC") profile. However, there's also a difference between the MISO Coater's profile and the '563 Patent ("MCC") profile. Here are pictures showing the three profiles:

[*Compare* DE 169-10, at 29 *with* DE 173-7.] Given that my claims construction states that a uniform coating profile permits slight deviation but not a crescent shape, it appears that Aristo's



substrates fall somewhere in between the '210 Patent and the '563 Patent. A jury must make the ultimate decision as to exactly where it falls, if either, and so summary judgment is denied as to Claim 1 of the '210 Patent.

BASF and Aristo's experts only add to this dispute. Aristo attacks BASF's expert analysis of the MISO Coater substrates, arguing that Schwartz's report doesn't properly consider all of the channels of the substrates, just a small portion from an area that would make the spiking less prominent. Aristo also argues that Schwartz's report didn't properly define "uniform coating profile" because his report used the "crescent shaped" language rejected in the claims construction. BASF's response is that Schwartz changed the definition after the claims construction to comply with the court's language, and still concluded that the MISO Coater creates a uniform coating profile. [Schwartz Decl., DE 216-1.] Additionally, Aristo submitted testimony from its own expert, Dr. Sawyer, who stated that Aristo's process doesn't result in a uniform coating profile, which BASF, of course, attempts to derail. [Sawyer 11/23/2011 Decl., DE 201-3 ¶ 17; DE 215, at 9-10.] It's clear we're dealing with competing expert opinions on a factual issue, and the jury, not me, must determine whose testimony on this issue is more reliable. *Edwards Sys. Tech., Inc. v. Digital Control Sys., Inc.*, 99 Fed. Appx. 911, 922 (Fed. Cir. 2004) (denying summary judgment on infringement where expert evidence conflicted); *Hemstreet v. Burroughs Corp.*, No. 87-1512, 1988 WL 93121, at *4 (Fed. Cir. Sept. 9, 1988) (reversing summary judgment where district court made credibility determinations in finding that a patent was obtained through inequitable conduct).

BASF insists that I should conclude that infringement occurred because Aristo's process simply adds an extra step – a high vacuum that causes spiking – and the doctrine of equivalents

provides that infringement occurs where the infringing product includes insubstantial differences from the patent. *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 234 F.3d 558, 564 (Fed. Cir. 2000); *Moleculon Research Corp. v CBS, Inc.*, 793 F.2d 1261, 1271 (Fed. Cir. 1986). I disagree because a jury may very well find that the spiking isn't insubstantial or simply an additional step. During oral argument, I asked BASF to explain whether the differences between the '034 Patent, '563 Patent, and '210 Patent are significant, and BASF insisted that the patents were distinctive because improvements to substrate coating processes are highly incremental. [Oral Arg. Tr., DE 237, at 37.] Given the expense of the precious metals the parties seek to conserve in this process, this makes perfect sense. However, it's inconsistent for BASF to contend that Aristo cannot simply add a step to avoid infringement, especially where that extra step creates a less uniform coating profile. At the end of the day, infringement is a factual finding, and there's conflicting evidence as to whether the MISO Coater creates substrates with a uniform coating profile, so summary judgment as to Claim 1 is denied.

Since I am denying summary judgment as to Claim 1, I can't grant summary judgment as to the dependent claims because each dependent claim includes all of the elements of Claim 1. *See Wahpeton Canvas*, 870 F.2d at 1552 n.9. Consequently, summary judgment is denied as to both infringement and non-infringement for Claims 1 to 6, 9, and 11 as to both Aristo and Rosynsky.

ASSIGNOR ESTOPPEL

BASF argues that assignor estoppel precludes Rosynsky, as the assignor, and Aristo, which is in privity with Rosynsky, from arguing that the '210 Patent is invalid. [DE 164, at 32-38.] Assignor estoppel is "an equitable doctrine that prevents one who has assigned the rights to

a patent (or patent application) from later contending that what was assigned is a nullity." *Diamond Scientific Co. v. Ambico, Inc.*, 848 F.2d 1220, 1224 (Fed. Cir. 1988); *Checkpoint Sys., Inc. v. All-Tag Security S.A.*, 412 F.3d 1331, 1336 (Fed. Cir. 2005).

This is a question for the court to decide and which can be resolved through summary judgment. *Shamrock Techs., Inc. v. Medical Sterilization, Inc.*, 903 F.2d 789, 793-94 (Fed. Cir. 1990). A determination as to whether assignor estoppel applies in a particular case requires a balancing of the equities between the parties. *See Q.G. Prods., Inc. v. Shorty*, Inc., 992 F.2d 1211, 1213 (Fed. Cir.1993). It is not just the assignor himself who is estopped from claiming that the patent is a nullity; those in privity with the assignor are likewise estopped from making such a claim. *Diamond Scientific*, 848 F.2d at 1224. Privity exists between an inventor and those who availed themselves " of the inventor's 'knowledge and assistance' to conduct infringement." *Intel Corp. v. U.S. Int'l Trade Comm'n*, 946 F.2d 821, 839 (Fed. Cir. 1991).

As an initial matter, Aristo claims that BASF can't benefit from this equitable doctrine due to its own unclean hands. *See Precision Instrument Mfg. Co. v. Automotive Maintenance Machinery Co.*, 324 U.S. 806, 814 (1945). According to Aristo, BASF knew that Aristo was building a machine because Takacs discussed it with BASF personnel. [Takacs Dep., DE 200-14, at 14-15.] This argument is a nonstarter. For one, Aristo doesn't cite any authority indicating that BASF's knowledge would somehow constitute wrongdoing. What's more, the evidence Aristo cites doesn't actually establish that BASF knew Aristo was building the MISO Coater. In Takacs' discussions with BASF personnel, he never mentioned Aristo or Rosynsky's names, and Takacs assured BASF in a letter that the company he was building the machine for wasn't BASF's competitor and the machine would be unlike what he's build for BASF. [DE 172-3.]

This is hardly evidence of unclean hands on the part of BASF, and so BASF isn't precluded from asserting assigning estoppel.

The assignor estoppel analysis as to Rosynsky is straightforward. BASF points out that Rosynsky, as one of the inventors and assignors of the '210 Patent, is barred from asserting its invalidity. Rosynsky argues that he's not estopped because the claims he assigned to BASF differ from the claims in the '210 Patent. Specifically, Rosynsky points out that he executed the assignment on July 26, 1996, but the patent application claims changed during prosecution without his approval. [DE 189-1, at 2-3.] That's an incorrect reading of his assignment, as the assignment expressly assigned "the entire right, title and interest in, to and under the said invention, and the said application and all divisions, renewals and continuations thereof, and all Letters of Patent of the United States which may be granted thereon and all reissues and extensions thereof." [DE 174-11, at 1.] Given the breadth of his assignment, including "said application and all divisions, renewals and continuations thereof," Rosynsky assigned BASF what ultimately became the '210 Patent, and he's barred from contesting its validity.

Applying this doctrine to Aristo is a closer question. The issue is whether Aristo was in privity with Rosynsky. Privity, like the doctrine of assignor estoppel, is determined upon a balance of the equities. *Shamrock Tech., Inc. v. Medical Sterilization Inc.*, 903 F.2d 789 (Fed. Cir. 1990); *Intel Corp. v. U.S. Int'l Trade Comm'n*, 946 F.2d 821 (Fed. Cir. 1991). The question I must answer is whether Aristo availed itself of Rosynsky's knowledge and assistance to build the MISO Coater. And when I consider the undisputed facts regarding Aristo's relationship with Rosynsky, it leads to no other conclusion than the two were in privity.

Rosynsky worked for BASF until he retired in 2000, and was an inventor of the '210

Patent. He retired from Engelhard in 2000, and in 2005, it is undisputed that Aristo contacted him to help design and build a new substrate coating machine. Aristo paid Rosynsky as a consultant, and he received a monthly retainer of $15,000 while the MISO Coater was being constructed and he was supervising its operations, and $6,000 a month afterwards. [Rosynsky Dep., DE 166-15, at 18, 15.] In fact, at the time of his deposition, Aristo was still paying him that $6,000 a month. [Rosynsky Decl., DE 200-19.] The responsibilities Rosynsky took on at Aristo included: drafting the machine specifications for the MISO Coater; choosing MPT as the fabricator of the MISO Coater; preparing a proposal for building the MISO Coater; overseeing MPT's work on the MISO Coater; drafting the operating manual and start-up checklist for the MISO Coater; and teaching the operators how to use the MISO Coater. [Rosynsky Dep., DE 166-15, at 2, 4, 8-10, 43-48, 16-17.]

It's apparent that all of Rosynsky's tasks at Aristo were directed towards the allegedly infringing conduct. Aristo really doesn't deny these facts. Instead, it downplays Rosynsky's involvement, saying that he designed a machine, not a process. Aristo correctly points out that Rosynsky didn't develop the parameters the machine ran under, just the machine. [Rosynsky Decl., DE 200-19 ¶¶ 2-3.] But this fact doesn't help Aristo. Rather, it narrows the focus of its relationship to Rosynsky's unique expertise in building coating machines, indicating that Aristo availed itself of Rosynsky as an inventor. The fact that Rosynsky didn't provide all the specifications for the MISO Coater and process doesn't mean that Aristo didn't seek him out for his expertise he gained from the '210 Patent. To the contrary, it demonstrates that Aristo already had some of the know-how to create the MISO Coater, but not everything. It needed Rosynsky to fill in the gaps to build the machine. And this tends towards, not away from, a finding of

privity. *See Intel*, 946 F.2d at 839.

Aristo also argues that there's no privity because Rosynsky served as a "mere consultant" for Aristo in designing and creating the MISO Coater, and that Aristo therefore didn't avail itself of Rosynsky's knowledge. Yet Aristo points me to two completely inapplicable cases concluding that privity did not exist: *Earth Res. Corp v. U.S.*, 44 Fed. Cl. 274 (Fed. Cl. 1999), and *HWB, Inc. v. Braner*, 869 F. Supp. 579 (N.D. Ill. 1994). In *Earth Resources*, the accused infringer was the United States. The court held that a "contractual relationship, alone, is not enough to establish privity," and that assisting in the design wasn't sufficient to show privity. 44 Fed. Cl. at 286. This case isn't on point. For one, the relationship here involves much more than a contract – Aristo and Rosynsky have an ongoing working relationship that's continued over the course of several years. What's more, in *Earth Resources*, the infringing party was the government, acting as a customer that didn't have a role in design, as Aristo did here.

The facts in *HWB* are similarly unhelpful. In that case, the assignor of a patent worked for the infringing company as the vice president of sales. 869 F. Supp. at 582. The court held that his job selling the infringing products didn't amount to privity with the infringing company because the inventor had no role in the infringing conduct. *Id*. Aristo attempts to draw a parallel between Rosynsky and the employee in *HWB* because they both were offered the chance to earn commission. But again, Rosynsky's relationship with Aristo was different. Rosynsky has never been a salesperson for Aristo; his role has been to assist in the design, manufacture, and operation of the MISO Coater. And although he doesn't actually sit down and operate the MISO Coater, Aristo sought him out to design the MISO Coater, and Rosynsky has since played a significant role in the MISO Coater's design and operations, factors that all favor a finding of

privity. *See Shamrock*, 903 F.2d at 794.

In sum, BASF's motion for summary judgment as to assignor estoppel is granted, and Aristo and Rosynsky are both barred from arguing that the '210 Patent is invalid. Therefore, I won't address either party's invalidity arguments, and summary judgment on invalidity is denied.

INEQUITABLE CONDUCT

Aristo claims that BASF's attorneys obtained the '210 Patent through inequitable conduct, and thus that the '210 Patent is unenforceable. BASF seeks a judgment that there was no inequitable conduct. The standard for invalidating a patent for inequitable conduct is quite high, requiring clear and convincing evidence that an applicant, with intent to mislead or deceive the examiner, deliberately failed to disclose material information during prosecution. *Therasense, Inc. v. Becton, Dickinson & Co.*, 649 F.3d 1276, 1290 (Fed. Cir. 2011); *Digital Control, Inc. v. Charles Mach. Works*, 437 F.3d 1309, 1313 (Fed. Cir. 2006). In fact, the Federal Circuit describes the inequitable conduct allegations as the "atomic bomb of patent law." *Therasense*, 649 F.3d at 1288 (citation omitted). Summary judgment is appropriate on an inequitable conduct claims when "drawing all reasonable factual inferences in favor of the non-movant, the evidence is such that the non-movant can not prevail." *ATD Corp. v. Lydall, Inc.*, 159 F.3d 534, 547 (Fed. Cir. 1998).

In deciding whether BASF acted inequitably in obtaining the patent, first I look to whether the undisclosed information was material to the prosecution of the patent, and then I determine whether that failure to disclose was intentional. *See Therasense*, 437 F.3d at 1290. As to materiality, Aristo's position is that BASF didn't disclose the '034 Patent during the patent

prosecution, and the '210 Patent would not have been issued otherwise. But the undisputed facts don't show that the '034 Patent was material.

To determine whether an undisclosed reference is material to the patent prosecution, courts consider whether "in view of the prior art and evidence of record, it is more likely than not that the claim is unpatentable." Man. of Patent Exam. Proc. § 706; *see Therasense*, 649 F.3d at 1292-93. I'll begin by reviewing the '210 Patent's prosecution history. The '210 Patent application was prosecuted in 1996 initially by Allen Kipnes, and then Richard Negin, who submitted supplemental information after the examiner rejected the first application. ['210 Patent Application, DE 174-12, at 1, 82.] In reviewing the application and its supplement, Kipnes and Negin referenced several patents, including the '563 Shimrock Patent. [*Id.* at 4.] The application describes the '563 Patent in detail, noting that it "encompasses a method of vacuum coating ceramic substrate members with a slurry of refractory and/or catalyst metal components wherein precisely controlled, predetermined amounts of the slurry are metered for application," and that the dip pan for this patent is "desirably shaped to freely receive but closely conform to the shape of the substrate to be coated." [*Id.* at 5.] Finally, the application states that despite the advantages of the '563 Patent, there's still "difficulty in obtaining a uniform coating profile such that the coating covers the same length of each channel." [*Id.*]

In any event, the examiner rejected the application, concluding that the '210 Patent was not patentable over the '563 Patent because the only difference between the two methods was "that Shimrock uses all of the slurry in the bath while applicant does not." [DE 174-12, at 36.] The examiner reasoned that "it would have been obvious to one having ordinary skill in the art to have operated the Shimrock process with more than the exact amount of coating material in the

bath because there would have been a reasonable expectation of obtaining the same results with either method." [*Id.*]

In the supplement to the application, Negin pointed out that the '210 Patent method had advantages over the '563 Patent method when coating less than the entire length of the channels of a monolithic substrate. [*Id.* at 61.] The examiner agreed, concluding that "if a partially coated substrate was desired (i.e. a coating surface which is less that than the length of the channels), the applicant demonstrates that a curvilinear profile is obtained if all of the slurry is drawn up . . . . Applicant's showing that an excess material will produce a linear profile is deemed unexpected." [*Id.* at 86.]

Given that context, Aristo claims that the '210 Patent wouldn't have been issued if the '034 Patent had been disclosed because that patent taught the addition of excess material in the coating pan. This argument is completely unpersuasive because the '563 Patent itself describes in great detail the '034 Patent. It's a little hard to swallow Aristo's argument that the '034 Patent was somehow being intentionally kept from the patent examiner when the '563 Patent was disclosed to the examiner and it in turn references the '034 Patent in great detail. And in any event, this argument is unpersuasive because the examiner already concluded that using excess slurry was obvious based on the '563 Patent. Assuming that Aristo is correct that the '034 Patent teaches the use of excess slurry – and that is far from certain – disclosure of the '034 Patent would have been cumulative information, and a cumulative reference is not considered material for purposes of inequitable conduct. *See Regents of Univ. of Cal. v. Eli Lilly & Co.*, 119 F.3d 1559, 1575 (Fed. Cir. 1997) (a reference is cumulative and thus not material "if the reference teaches no more than what a reasonable examiner would consider to be taught by the prior art

already before the PTO"). The '034 Patent information related to excess slurry is therefore not material.

Next, Aristo argues that because the '034 Patent addresses how to avoid spiking and create a linear profile, if the patent examiner had reviewed this material, he would have concluded that the '210 Patent's use of excess slurry to create a uniform coating profile was obvious. [*See* '034 Patent, at 6:33-59; 13:16-18; DE 200-13, Sawyer Dep. at 188.] Again, this information from the '034 Patent is not material because the '563 Patent included the same information:

> Thus, by using the process and apparatus of the present invention, it is possible to apply a uniform coating of the desired concentration of the . . . catalyst metal components without the need for external coating.
> . . . .
> This has been found to speed up the impregnantion process and materially improve the uniformity of the coating distribution on the interior skeletal passageway walls.
> . . . .
>
> The purpose of loading the slurry using two levels of vacuum is to avoid "spiking" of the coating slurry in the interior passageways of the substrate. Spiking is a phenomenon which occurs when the initial vacuum is applied too high and the slurry is therefore not drawn uniformly up into the cells of the substrate.

[DE 174-4, at 2:53-59; 3:28-31; 14:31-38.]. Given these disclosures in the '563 Patent related to the desirability of a uniform profile and how to avoid spiking, the '034 Patent is cumulative of the '563 Patent.

Aristo also sets out a chart that compares each of the '210 Patent claims to the '034 Patent claims to argue that in broadly construing the '210 Patent claims, the '034 Patent already teaches those claims. [DE 200, at 35-37.] This chart isn't persuasive. Although the column describing the '210 Patent claims tracks its claims closely, the column describing the '034 Patent claims doesn't actually describe the claims. Rather, it's a compilation of the patent's abstract,

the examples therein, and Aristo's interpretation of the '034 claims. Such conjecture is a far cry from the "but-for" evidence necessary to show that the '034 Patent was material. *Therasense*, 649 F.3d at 1292-93.

Finally, Aristo claims that the '034 Patent teaches the updraw method of '210 Patent, and therefore the examiner would have found the '210 Patent obvious had he been apprised of the '034 Patent. In support, Aristo references an article addressing the physics of coating the inside of a capillary, written in 1991. [Kolb & Cerro, *Coating the Inside of a Capillary of Square Cross Section*, DE 195-2, at 11-12.] Aristo claims that the article states that the updraw and draw-down processes are interchangeable, and thus that the '034 Patent, using draw-down, applies to the updraw process of the '210 Patent. I'm not convinced that the article makes that conclusion, but even assuming that the updraw and draw-down methods are interchangeable, the '034 Patent is cumulative. The '563 Patent and the '126 Patent, referenced in the '210 application, each discuss the draw-down method. [DE 174-4, at 2:21-27.] As Aristo's evidence shows only that the '563 Patent was cumulative of the '034 Patent, I'm wholly unconvinced that the '034 Patent was material to the examiner's acceptance of the '210 Patent.

In any event, even if I were to conclude that a '034 Patent reference was material, the undisputed facts don't indicate an intent to deceive. The Federal Circuit has stated that "clear and convincing evidence must show that the applicant made a deliberate decision to withhold a known material reference." *Therasense*, 649 F.3d at 1290 (quoting *Molins PLC v. Textron, Inc.*, 48 F.3d 1172, 1181 (Fed. Cir. 1995)). In evaluating intent, courts may infer intent from indirect and circumstantial evidence. *Therasense*, 649 F.3d at 1290. However, to meet the clear and convincing evidence standard, the "specific intent to deceive must be the 'single most reasonable

inference able to be drawn from the evidence.'" *Id.* at 1291 (quoting *Star Scientific, Inc. v. R.J. Reynolds Tobacco Co.*, 537 F.3d 1357, 1366 (Fed. Cir. 2008)).

The record doesn't contain any evidence that BASF's attorneys intended to hide the '034 Patent from the patent examiner. The circumstantial evidence Aristo submitted as to intent is unconvincing, and the only direct evidence of intent works against Aristo. Aristo begins by pointing out that BASF owned the '034 Patent when it was prosecuting the '210 Patent, and that Negin worked at BASF from 1993 to 2007 working in the automotive catalyst area. [Negin Dep., DE 200-9, at 2.] During that time, Negin was responsible for technologies involving the metered charge coating process described in the '563 and '034 Patents, and Negin admits that he had seen the '034 Patent. [*Id.* at 4-5.] Negin also admitted that when he submitted a second disclosure statement for the '210 Patent, he failed to include the '034 Patent. [*Id.* at. 7-9.] Conversely, Kipnes testified that he didn't believe that the '034 Patent would have provided any more information than the '563 Patent. [Kipnes Dep., DE 166-9, at 3.] And although he admitted to knowing about the '034 Patent, Negin testified that he couldn't remember why they didn't disclose it during the '210 Patent prosecution. [Negin Dep., DE 215-4 at 2 ("I do not recall whether or not I was involved in it . . . I have no recollection of this patent.").]

According to Aristo, the failure to disclose the '034 Patent, in light of Negin's vast experience in this field at BASF, was intentional. Additionally, Aristo argues that I should infer an intent to deceive from Negin's memory lapse. I disagree. For one, inferring an intent to deceive from memory loss isn't a reasonable inference from the facts at hand. *Larson Mfg. Co. of South Dakota v. Aluminart Prods., Ltd.*, 559 F.3d 1317, 1341 (Fed. Cir. 2009). Aristo doesn't have any other evidence of an intent to purposefully avoid disclosure of the '034 Patent. In

reviewing the undisputed facts, the most reasonable inference from the failure to disclose is that the '563 Patent relied so heavily on the '034 Patent that the failure to specifically reference the '034 Patent was an oversight, or at most a decision that the reference would be cumulative. Given that the '034 Patent was not material and Aristo has not shown that BASF intentionally failed to disclose it, there was no inequitable conduct as a matter of law.

CONCLUSION

To summarize: each of the evidentiary motions are [DE 190; 191; 198; 199; 217] are **DENIED**. As to the dispositive motions, BASF's Motion for Summary Judgment on Infringement [DE 163], Aristo's Motion for Summary Judgment [DE 167], and Rosynsky's Motion for Summary Judgment [DE 183] are **DENIED**, and BASF's Motions for Summary Judgment on Assignor Estoppel [DE 164] and Inequitable Conduct [DE 165] are **GRANTED**.

SO ORDERED.

ENTERED: May 29, 2012

s/ Philip P. Simon
PHILIP P. SIMON, CHIEF JUDGE
UNITED STATES DISTRICT COURT